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TITLE "EVALUATION OF THE BASS RIVER NOVA SCITIA MAGNETITE DEPOSIT (executive summary)"
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EXECUTIVE SUMMARY

OF

THE REPORT ON THE

FEASIBILITY OF DEVELOPING

THE BASS RIVER MAGNETITE DEPOSIT

by LODESTONE LTD

MICROMEDIA

9 pp

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Introduction

This report is a brief summary of project methodology results of the evaluation of the economic potential of the Bass River Magnetite Deposit. The following elements have been addressed:

1) preliminary core drilling,
2) assays and magnetic separation,
3) trenching,
4) engineering analysis,
5) market research,
6) metallurgical research,
7) bulk sampling program
8) operation design and costing,
9) geological and geophysical research,
10) on-going economic analysis.

The program has indicated the project is viable. The following section summarizes results. For more information please refer to the appropriate source report.

1) Drilling

A limited core drilling program was conducted using the services of Maritime Drilling Ltd. Six holes totalling 300 metres were drilled; five of which intersected significant magnetite and sulfide minerals across apparent widths of roughly 30 meters. Please refer to the report by Jacques Whitford &

Associates entitled, "An Evaluation of the Bass River Magnetite Property".

2) Assays and Process Research

Assays were conducted by the Minerals Engineering Centre using sample lengths of one meter. The assays showed varying magnetite content. Average grade across the section was determined to be 35% magnetite and about 5% iron pyrite (which contains 1% cobalt).

Magnetic separation tests were also conducted by M.E.C.. These tests included grind tests, magnetic separation, particle size analysis and sulfide flotation. The tests demonstrated that high purity magnetic concentrate can be produced within grind specifications for market application. Sulfide flotation tests demonstrated that cobalt concentrates of only 1% Co can be achieved.

Please refer to the report by Minerals Engineering Centre entitled, "Report on Mineral Processing Tests Carried out on Core Samples".

3) Trenching

Trenching programs were conducted to obtain geological information to allow calculation of ore reserves. Trenches were dug across the section. Magnetite distribution patterns similar to drill core patterns were encountered. The structure was

determined to be dipping south at 50o. Refer to the Jacques Whitford Report.

4) Engineering Analysis

Engineering work was done by Jacques Whitford and Associates. They synthesized available data to estimate reserves, develop mining plans and obtain regulatory approvals. Their report indicates that the property contains substantial tonnage of magnetite mineralization.

5) Market Research

Market research identified four sectors other than the steel industry where magnetite is utilized. They are;

1) heavy media in coal and mineral processing,
2) powder metallurgy,
3) ferrite magnet manufactures,
4) pigments.

Heavy media applications utilize 750,000 tonnes per annum in North America. Coal companies were contacted throughout eastern North America. All indicated very strong interest as current suppliers have depleted their resources.

Powder metallurgy (direct reduction of iron oxide) utilizes 200,000 TPA in North America. One customer, Hagganas of New

Jersey, indicated that they would use up to 40,000 TPA of our material provided Lodestone's price and quality.

Ferrite manufacturers contacted indicated that markets of 10,000 TPA would be available to Lodestone as long as specifications can be met.

Magnetite is used as a black pigment in paint, plastics and other substances. An international trading house is evaluating markets worldwide and has indicated that market for up to 10,000 TPA are available to Lodestone at prices roughly twice of those for heavy media applications.

Magnetite markets in general are very buoyant as:

1) a major supplier has depleted all its reserves,
2) magnetite mines are closing generally due to conditions in the steel industry,
3) currency considerations are decreasing competition of offshore resources,
4) demand is growing.

Additional market research is in abeyance pending process research results.

6) Metallurgical Research

Additional process tests are currently on-going to determine if specifications for powder metallurgy, ferrites and pigments can be achieved. These tests are focussing on reducing silica content by reverse flotation and other methods. Test results are not yet available. Preliminary data indicates high purity magnetite suitable for all markets can be produced.

7) Bulk Sampling Program

About 4,000 tonnes of ore was quarried from the Bass River Deposit. The ore was transported to an idle processing plant at Enon, Cape Breton County, N. S. The ore was processed by wet magnetic separation yielding approximately 1000 tonnes of magnetite having specific gravity of 4.6. The product was used as heavy media by the Victoria Junction Coal Preparation Plant. The product performed well as a heavy media in spite of being marginally below specifications. Specifications can be readily achieved with minor modifications to the process flowsheet.

8. Operation Design and Costing

Mine design is being undertaken by Jacques, Whitford and Associates and A. Barrett. Design and costing has not yet been completed.

Plant design is being undertaken by Shebib and Associates and A. M. Barrett. The design is essentially complete except that flotation circuits may be added if markets other than heavy

media can be penetrated. Costs to develop the mine site are estimated to be $200,000. Costs to develop plant facilities are estimated to be $750,000 for a simple magnetic separation plant and $3,000,000 for a fully integrated plant with flotation circuits.

9) Geological and Geophysical Research

Detailed mapping and magnetometer surveys were conducted to resolve discrepancies in previous work. This research indicated that the deposit is a tabular pipe-like structure having surface dimensions of 200 meters by 45 meters. The deposit apparently extends to depth. The deposit was formed in dilation systems along the Cobequid fault systems. Very large tonnage appears probable.

10) Economic Analysis

Some fifty scenarios have been evaluated using computer models. Sensitivity analysis conducted by Shebib and Associates and A. M. Barrett indicates high probability of profitability at relative low levels of output levels. The project appears to be very profitable at high output levels assuming no significant erosion of magnetite prices occurs.

11) Conclusion

The preliminary feasibility analysis of the developing of the Bass River Magnetite deposit has been completed. The project is both technically and economically viable. Additional work is desirable to expand the reserve base and develop markets before finalizing plant scale and design.

The following reports provide more detailed information:

1) Lodestone Limited - An Evaluation of The Bass River Magnetite Property, Bass River, Nova Scotia by Jacques, Whitford and Associates Limited.

2) Lodestone Limited - Magnetite Bulk Sample, Bass River, Colchester County, Revised Drawing, Jacques, Whitford and Associates Limited.

3. Minerals Engineering Centre - Report on Mineral Processing Tests Carried out on Core Samples

4. A. M. Barrett - Geological Evaluation of the Bass River Magnetite Deposit

5. A. M. Barrett and Shibib and Associates - Report on the Bass River Magnetite Bulk Sampling Program

6. Shebib and Associates - Bass River Magnetite Project